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**IOWA UTILITIES BOARD**  
**Energy Section**

Docket No.: RPU-2014-0002  
Utility: MidAmerican Energy Company  
Memo Date: December 1, 2014

**TO:** The Board

**FROM:** Dan Fritz -Team Lead, Leslie Cleveland, Rob Hillesland, Bob LaRocca, Ellen Shaw, Gary Stump, Mack Thompson

**SUBJECT:** Second Question Memo in Docket No. RPU-2014-0002

**I. Background**

On October 10, 2014, MidAmerican Energy Company (MidAmerican) filed with the Board an Application for Determination of Ratemaking Principles (Ratemaking Principles). This project has been identified as Wind IX. MidAmerican is requesting eight principles related to the construction of 162 MW of additional wind capacity. MidAmerican is requesting expedited treatment of this case and is asking for a decision by January 15, 2014. The requested principles cover:

- Iowa Jurisdictional Allocation
- Cost Cap
- Size Cap
- Depreciation
- Return on Equity
- Cancellation Cost Recovery
- Renewable Energy and CO2 Credits, etc.
- Federal Production Tax Credits

**II. Legal Standards**

Iowa Code § 476.53(3)c states:

In determining the applicable ratemaking principles, the board shall make the following findings:

- (1) The rate-regulated public utility has in effect a board-approved energy efficiency plan as required under section 476.6, subsection 16.

(2) The rate-regulated public utility has demonstrated to the board that the public utility has considered other sources for long-term electric supply and that the facility or lease is reasonable when compared to other feasible alternative sources of supply. The rate-regulated public utility may satisfy the requirements of this subparagraph through a competitive bidding process, under rules adopted by the board, that demonstrate the facility or lease is a reasonable alternative to meet its electric supply needs.

### **III. Analysis**

On November 24, 2014, MidAmerican filed responses to the Board's November 14, 2014, Order Requiring Additional Information. Staff is continuing its review of these responses and has the following additional questions for MidAmerican:

1. In MidAmerican's response to Question 24 of the Board's November 14, 2014, Order MidAmerican stated that one of the benefits that will flow to customers before a future rate case is the incremental net income from the asset that will be included in revenue sharing calculations.
  - a. Provide MidAmerican's projected earnings for each of the next 10 years 2015-2024. Based on these earnings provide the sharing amounts based on the thresholds in place today. Provide this information both with and without Wind IX.
  - b. Provide an estimate of MidAmerican's total wholesale sales for each of the next ten years and an estimate of the wholesale sales enabled by Wind IX for each of the years. Include the key assumptions used to develop these estimates.
2. Referring to MidAmerican's response to Question 24 of the Board's November 14, 2014, Order:
  - a. Confirm that the annual cash impact to customers under the settlement is the stream of values labeled Energy Adjustment Clause (EAC) Benefit up until Wind IX is added to rate base, and the stream of values labeled Net Revenue Requirement once Wind IX is added to rate base.
  - b. Confirm that the remaining annual Net Revenue Requirement values will be the annual cash impact on customers regardless of when the project is added to rate base.
3. Update all values provided in response to Question 24 of the Board's November 14, 2014, Order for the following scenarios. Provide the responses in Excel format.
  - a. Using the settlement Return on Equity (ROE).
  - b. Using the settlement ROE and using the requested cap amounts as the investment assumption.
  - c. Using the settlement ROE, excluding Green House Gas (GHG) benefits, and excluding forecast error benefits.

- d. Using the settlement ROE, excluding GHG benefits, excluding forecast error benefits, and using the requested cap amounts as the investment assumption
4. Update the levelized cost analysis using the four scenarios listed in Question 3.
5. What is the basis for the investment amount assumed in the economic analysis? Explain the difference between that amount and the requested cap.
6. Provide additional explanation for the forecast error value, what it is, why it makes sense to include it, and the basis for the estimated value.
7. Provide a forecast and comparison of the key assumptions used to drive the net system benefit analysis, e.g., fuel prices, market prices, etc. for Wind VIII and Wind IX.
8. How do the avoided costs used for the calculation of Wind IX benefits compare to the avoided costs filed in MidAmerican's avoided cost docket?
9. How did MidAmerican quantify the impact of transmission interconnection uncertainties on the capacity factor assumed for Wind IX, e.g., the impact of delayed interconnections, conditional interconnections, system operating guides and the like? Provide the capacity factor impact assumed for interconnection uncertainties.
10. At the November 20, 2014, Interconnection Process Task Team meeting MISO presented alternatives and positions with respect to generation interconnection and resource adequacy process alignment, network resource interconnection service, energy resource interconnection service, and the like. Relative to the assumptions contained in MidAmerican's Wind IX analysis, what is the potential impact of the alternatives and positions that MISO presented at that meeting?
11. Is the total amount that is to be paid to the developer that MidAmerican identified in response to Question 3 of Board's November 14, 2014, Order included in the calculation of the requested cost cap? If not, will this cost be charged above or below the line?
12. Provide a timeline and description that shows MidAmerican's projected generation changes, both retirements and additions, for each of the next ten years, 2015-2014.

#### **IV. Recommendation**

Staff recommends the Board sign the attached order requiring MidAmerican to provide responses to the questions included in this memo.

*Provide the best estimate of current installed costs per MW for Wind VIII?*

*What are the risks to consumers if this project is approved without the final connection study and approval from MISO?*

*In MidAmerican's response to Question 13 of Board's November 14, 2014, Order MidAmerican stated that the turbine supply and purchase of the development rights are*

*contractually fixed. How do these costs compare to the Wind VIII turbine supply and purchase of development rights?*

*Hammer's testimony on page 18 indicates that wind has reliance on other generation, limits availability of other generation and is least likely to be available during peak conditions. How does the economic analysis presented by MidAmerican account for:*

- Limitations on availability of other generation*
- Additional other generation needed to support the addition of wind resources*

*Does the economic analysis presented by MidAmerican place any value on grid reliability such as voltage stability, or frequency stability and how does the addition of wind impact these areas?*

*What is the ratio of other generation to wind generation needed to support wind in terms of MWs?*

*Nick Wagner 12/2/2014*